

## Patent Abstracts of Japan

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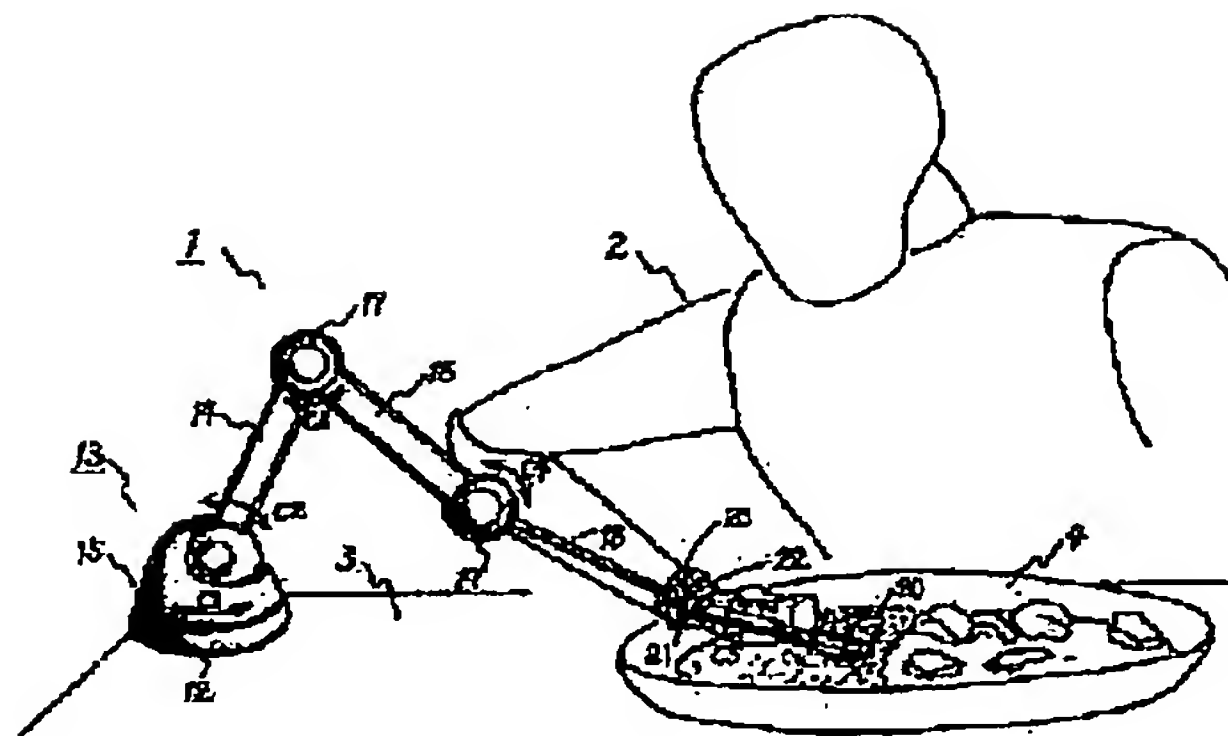
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TITLE : UPPER LIMB MOTION ASSISTING  
DEVICE



**ABSTRACT :** PROBLEM TO BE SOLVED: To simplify the constitution, and effectively assist everyday life or the like such as a manual work by a method wherein at a free end of this assisting device, an appliance which is fitted on an upper limb of a person to be assisted, is provided, and the track of the free end is controlled based on force information of the person to be assisted, which is applied to the appliance, and the motion of the upper limb is assisted.

**SOLUTION:** The vector of a force from a person to be assisted is detected by a force sensor which is applied on an appliance 23, and the vector is read by a control part. The control part obtains the amount and the direction of the applied force by the force vector, and controls the track of a free end part 11 of a manipulator 1. That is, respective driving motors for respective joints 15, 17, 19 and 22 are controlled. Thus, the rotating amounts of respective joints 15, 17, 19 and 22 are controlled, and at the same time, the location of the free end part 11 with a fixed part 13 as a reference, based on the command values, is calculated. Thus, hand can be moved to a tableware 4, e.g. a spoon 20 or the like, and everyday life and a rehabilitation or the like can be effectively assisted.

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